

Green Space Engagement in Hall County, Georgia, USA

An Examination of Latino, Anglo, and African American Communities

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Abstract

Prior studies have shown that immigrant and ethnic/racial minority neighborhoods have less access to urban green space than predominantly white (native born) neighborhoods. A comparison has been made in this paper of urban green space engagement for residents in predominantly Latino, Anglo (white), and African American communities in Hall County, Georgia (GA). Hall County, particularly the county seat, Gainesville, is one of many 'new destination' sites for Latinos migrating and immigrating to the southeastern U.S. The city also contains longstanding black neighborhoods. Green space engagement--relaxing in the yard, walking in the neighborhood, gardening, tree planting, and visiting neighborhood parks--was examined as a function of a number of demographic variables including community where one lives and percent canopy coverage. Residents in the lower income, majority black community were less likely than residents in either of the two majority white communities to say they relaxed in their yards, walked the neighborhood, gardened, or planted trees at their homes. Homeowners were more likely than those not owning homes to garden and plant trees.

Keywords

Latino Migration; Nature Engagement; Urban Green Space

Introduction

Latino migration to non-traditional destinations in the southeastern U.S. has sparked a flurry of monitoring programs in health, education, and the broader social sciences aimed at understanding the needs of these rapidly growing populations. Yet, few investigations have examined Latino engagement with nearby, urban green space in the southern cities and neighborhoods and communities where Latinos settle, despite charges elsewhere that minority communities are disadvantaged in terms of access to environmental goods and services [8, 15, 18]. Indeed, many of the ills prevalent in inner-city, predominantly African American neighborhoods

are found in migrant and immigrant communities, including higher obesity rates and disease incidence [3, 4]. One means of mitigating poor health among urban, minority populations is the promotion of physical activity in urban parks and green spaces [3, 4]. Additionally, urban green spaces can provide solace amidst volatility and hurry in the city [17]. Other benefits include free access, low travel costs, and familiarity with facilities and staff.

Research conducted by Francis Kuo, William Sullivan, and their colleagues is particularly relevant to the present study, given that natural areas in some of their investigations seemed to have beneficial effects, even for poor residents contending daily with inner-city blight and volatility. Findings from Kuo Sullivan's research teams and others suggest that even minimal contact with nature in urban settings contributes significantly to well-being indicators like stress and mental fatigue reduction, mood enhancement, self-discipline for young girls, and even crime reduction [1, 6, 10, 11, 12].

This study compared majority Latino, Anglo, and African American community engagement with green space in Hall County, GA. Green space engagement refers to both active and passive human contact or interaction with trees, shrubs, gardens, and other naturally occurring green areas in cities, suburbs, and rural areas. Five indicators of green space engagement were examined: relaxing outside one's home, walking in the neighborhood, gardening at home, tree planting at home, and visiting neighborhood parks.

Hall County, GA

In 2000, Latinos accounted for roughly 20% of Hall County's population and 33% of Gainesville's population [19]. By 2010, the Latino population had

increased to 26% of the county population, a 72% increase since 2000 [20]. Lured by the poultry and textile industries, expanding service sector economies in the 1990s, and relatively inexpensive living costs, Latinos have established communities and businesses in Gainesville and in neighboring cities across northeast Georgia (GA). Latinos are now 41% of Gainesville's population despite a new, controversial immigration law which, some speculate, will prompt noticeable numbers of Latinos to leave the state [5, 13].

Research Question

Given disparities in other public sectors such as healthcare and housing, our investigation asks: are there differences in green space engagement for Hall County residents in majority Latino, Anglo, and African American communities?

Data

Again, data on green space activities consists of: relaxing outside at home, neighborhood walking, gardening at home, tree planting at home, and visiting neighborhood parks. We also collected data on tree canopy coverage to examine whether the amount of neighborhood vegetation influences resident interaction with urban green space. A positive association is expected between canopy coverage and engagement with green space activities.

Methodology

Study Area

The study area consists of four areas in Hall County which are combinations of two or more adjacent census block groups (CBGs), see Table I and Fig. 1, including fifteen CBGs, ten in Gainesville and five elsewhere in Hall County. The ten CBGs in Gainesville are: 4004, 5003, 5004, 8001, 8002, 11011, 11012, 11013, 11021, and 12012. Block groups 8003, 14032, 14043, 16061, and 16062 are outside of Gainesville's municipal bounds. Two of these—14032, 14043—are in the town of Oakwood; and 16061 and 16062 are in the town of Flowery Branch.

Block groups 8001, 8002, and 8003 are from historically African American communities in southeast Gainesville and Hall County. This collection of block groups is labeled "Newtown/Fair St." The 1100 and 1200 CBGs are majority Latino communities in the central city of Gainesville, "South Central." South Central is part of Gainesville's Ward 3. It is typical of

older, downtown approximate communities with mixed residential, commercial, and industrial establishments. The South Central area is comprised of formerly working class, white communities. When Latinos began arriving in large numbers to Gainesville and Hall County in the 1990s, many of them settled into these central city CBGs because of proximity to various industries, notably poultry processing located within Gainesville.

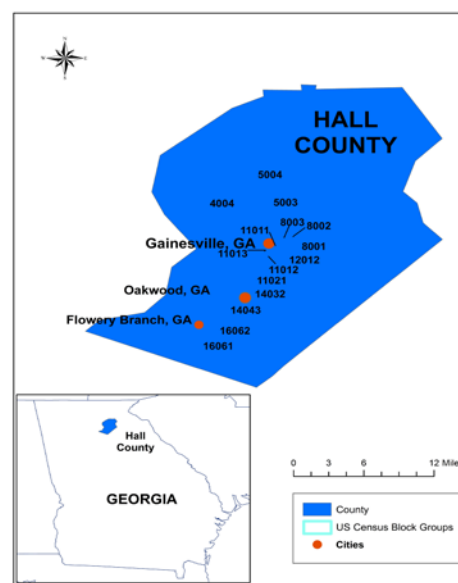


FIG. 1 HALL COUNTY STUDY AREA

TABLE 1 CENSUS BLOCK GROUPS, POPULATION, SQUARE MILES, AND POPULATION PER SQUARE MILE FOR NEWTOWN/FAIR ST., SOUTH CENTRAL, LAKE, AND OAKWOOD/FLOWERY BRANCH

	Census Block Groups	Population	Square Miles	Population per Square Mile
Newtown/Fair St.	800, 8002, 8003	3,402	1.846	1,843
South Central	11011, 11012, 11013, 11021, 12012	12,078	4.788	2,523
Lake	4004, 5003, 5004	5,357	4.756	1,126
Oakwood/Flowery Branch	14032, 14043, 1606, 16062	6,070	4.085	1,486

The third area is the higher income, north side "Lake" area in Gainesville (4000 and 5000 CBGs). This cluster of block groups is roughly 3.4 miles north of South Central's northern boundary. It abuts and contains portions of Lake Sydney Lanier (Lake Lanier), one of the state's premier outdoor recreation areas. The area is also a mixed use area with both residential and commercial areas. Several of Gainesville and Hall County's more prominent parks are situated on the

outer periphery of the Lake area. One of these parks, Clarks Bridge, was the venue for the rowing, sprint canoe, and kayaking events of the 1996 Olympic Games.

The fourth area combines two block groups from the towns of Oakwood and two from Flowery Branch ("Oakwood/Flowery Branch"). The distance between Oakwood and Flowery Branch is approximately 5.5 miles. Though the towns are independent municipalities, we combined them for this analysis because they both represent smaller towns with similar socioeconomic characteristics distinct from the larger city of Gainesville. For instance, 82 and 72% of Flowery Branch and Oakwood's residents, respectively, are white, non-Hispanic; Latinos comprise 14 and 24% of Flowery Branch and Oakwood's population, respectively. This compares to a white, non-Hispanic population of 54% in Gainesville and a 42% Latino population. Blacks make up roughly 15% of Gainesville's population, 9% in Flowery Branch and about 12% in Oakwood. Median age is the lowest in Gainesville at 29, possibly reflecting the lower mean and median ages associated with Latino populations. The median age in Oakwood is 31 and 33 in Flowery Branch [21]. In terms of income, however, Gainesville and Oakwood are more similar with median household incomes of \$37,866 for Gainesville, \$39,858 for Oakwood, and \$52,222 for Flowery Branch [22]. The total population of the towns Oakwood and Flowery Branch is 3,970 and 5,679, respectively [23].

The 2010 U.S. Census showed that the total population for block groups comprising Newtown/Fair St. was 3,402; South Central was 12,078; total number of persons in the Lake area was 5,357; and 6,070 in Oakwood/Flowery Branch (Table I) [20]. Table I also shows square miles and population per square mile for each study area. As indicated, South Central and Newtown/Fair St. have the highest population density, followed by Oakwood/Flowery Branch and the Lake. Median household income ranges in the census tracts in which the four communities are located were \$22,209 to \$37,270 (Newtown/Fair St.); \$16,559 to \$37,604 (South Central); \$44,816 and \$81,105 (Lake); and \$35,593 to \$67,199 (Oakwood/Flowery Branch) [24]. Household income is not available at the CBG level in the 2010 U.S. census. It is available in the U.S. census American Community Survey for 2006-2010.

Residential Survey

A household survey was designed to obtain data on resident engagement in the five activities. In addition,

the following demographic data were collected—age, race, gender, education, and whether respondent lived in a home that was owned or rented. The survey was administered door-to-door by four contracted individuals. Interviews were conducted regardless of interviewees' race or ethnicity. Because of our desire to obtain information from communities with large minority populations (which tend to participate less than whites in mail or telephone surveying), it was determined that the most effective form of data collection would be door-to-door surveys. Each surveyor was trained in appropriate data collection methods, including avoidance of leading questions and bias of survey responses, appropriate data entering and storage techniques, and most appropriate day of week and time of day to survey. Surveyors collected data seven days a week, typically after 6:00 pm although in some cases surveys were collected before this time.

An African American male who was reared in Newtown and familiar with community dynamics conducted the survey in Newtown/Fair St. A Latina (female Hispanic), also familiar with Gainesville's Hispanic communities, administered the survey in the mostly Spanish speaking 1100 CBGs. An African American female who lives in Gainesville conducted the survey in one part of Oakwood/Flowery Branch; and a white male, who had worked in Gainesville for ten years, administered the survey in the remaining parts of Oakwood/Flowery Branch and in the Lake area. Surveyors used handheld Palm Pilots® to record responses. The data were subsequently downloaded into a Microsoft Excel® spreadsheet and further prepared for analyses using SAS statistical software.

The overall sample size is 365—173 in Newtown/Fair St.; 71 for South Central; 50 for the Lake; and 71 for Oakwood/Flowery Branch; however, sample size for any given analysis may vary due to missing responses for particular variables. The overall response rate is 80.9%; 92.2% for Newtown/ Fair St.; 90.1% for South Central; 64.1% for the Lake; and 66.4% for Oakwood/Flowery Branch. The lower sample size for the Lake and South Central areas may be attributed to the fact that data collectors in these parts of the county did not live in their respective communities or know the residents intimately; whereas those collecting data in Newtown/Fair St. and South Central were very familiar with both the communities and many residents.

To examine possible survey bias, sample characteristics were compared—percent Latino, black, white, female, and homeowners—to 2010 U.S. census figures for each

of the four areas (Table II). Education is not available from the 2010 census at the CBG level. Overall comparisons show somewhat similar characteristics for our sample and census data. Of the twenty percentages compared (aggregated median age from the 2010 U.S. census was not amenable to cross-community comparison), twelve were similar.

The larger sample size in Newtown/Fair St. results from more intensive sampling in the Newtown community. Previous research suggested that the demographic characteristics of many residents in this part of Gainesville (lower income and education levels, higher than average black population) would result in lower response rates. To overcome possible low response rates for this community, we attempted to achieve a 90 percent or higher coverage rate for this sampling area. We impute lower education levels for Newtown/Fair St. residents because the tract in which they live shows lower than average (county) college attainment levels.

As well, for the Lake area, data were only collected from that portion of block group 5003 south of Lake Lanier. This was done to facilitate ease of access to homes in these communities. Many of the homes in block group 5003 have very large yards which are difficult to traverse. While some differences between the sample and the population for key demographic variables are acknowledged, these differences represent no significant or consistent biases.

Tree Canopy Data

Tree canopy cover data, by street segment, was paired with household data from the residential surveys. Again, it was surmised that greater canopy coverage

would correlate positively with each of the five activities, other factors equal. Tree canopy cover per street segment was estimated using an on-line canopy cover assessment tool, i-Tree Canopy (www.itreetools.org). Each street segment on which respondents resided was identified using GIS 9.3; and a 100-foot buffer around the street segment centerline was created. The buffered street segment was saved as an Environmental Systems Research Institute (ESRI) shape file and re-projected in decimal degrees (WGS1984). The shape file, in decimal degrees, was then imported into an i-Tree Canopy project to estimate the percentage of canopy cover for that street segment. The i-Tree Canopy application randomly placed a point onto Google Earth imagery within the buffered street segment. Each random point was judged to have fallen on tree canopy or not. Enough points were collected for each street segment to give a standard error below ten, which is determined by the i-Tree Canopy application to be acceptable. Each street segment had a minimum of 20 random points to estimate tree canopy cover. Mean percent canopy coverage was 29.2% and ranged from 0 to 86%. Mean percent coverage in Newtown/Fair St. was 28.8%; 27.0% in South Central; 22.0% in Oakwood/Flowery Branch; and 41.7% in the Lake area.

Analysis Dependent Variables

Dependent variables and the corresponding survey questions are shown in Table III. All dependent variable responses were coded into dichotomous choice responses, either "yes" or "no" or a response indicating lesser or greater amounts of an activity. "No response" options were available for all questions and were coded as missing for analyses.

TABLE 2 COMPARISON OF SELECTED SAMPLE AND POPULATION CHARACTERISTICS FOR HALL COUNTY, GA, USA. NUMBER IN PARENTHESES IS THE STANDARD ERROR (%)

Characteristic	Sample				Population 2010 U.S. Summary File 1			
	Newtown	South Central	Lake	Oakwood/Flowery Branch	Newtown N=3,402	South Central N=12,078	Lake N=5,357	Oakwood/Flowery Branch N=6,070
			-percent-				-percent-	
Latino	6.4 n=172	73.2 n=71	4.0 n=50	8.7 n=69	36.6	81.1	9.7	20.0
Black	91.9 n=172	4.2 n=71	2.0 n=50	5.8 n=69	40.6	6.3	9.4	9.9
White	1.7 n=172	22.5 n=71	94.0 n=50	85.5 n=69	27.0	27.1	81.1	77.8
Female	57.0 n=172	40.6 n=69	44.0 n=50	48.5 n=66	62.5	45.3	49.7	51.4
Median Age	55.48 n=170	39.5 n=62	54.0 n=50	46.0 n=69	--	--	--	--
Own Home	62.8 n=172	55.2 n=67	90.9 n=44	75.4 n=69	38.5	32.6	60.4	46.7

TABLE 3 RESIDENTIAL SURVEY-DEPENDENT VARIABLES INDICATING GREEN SPACE INTERACTION IN HALL COUNTY, GA, USA

Dependent variables	Survey questions	Response options
1. Relaxing outdoors	Do you or anyone in this household spend time relaxing in your yard or a neighbor's yard on nice days?	Yes/no/no response
2. Walking outdoors	Do you or anyone else in this household spend time walking for pleasure in this neighborhood?	Yes/no/no response
3. Gardening	In recent years, have you or other household members planted vegetables in the ground in this neighborhood?	Yes/no/don't know/no response
4. Residential tree planting	Have you or other household members ever planted trees or shrubs in this neighborhood?	Yes/no/don't know/no response
5. Visit neighborhood parks	Do you or other household members go to nearby parks in your neighborhood?	Yes/no/don't know/no response

TABLE 4 LOGISTIC REGRESSION ESTIMATES OF RESIDENTIAL GREEN SPACE INTERACTION — DEPENDENT VARIABLES: RELAXING OUTDOORS, WALKING IN NEIGHBORHOOD, GARDENING, PLANTING TREES OR SHRUBS, AND PARK VISITATION

Dependent variable	Relaxing	Walking	Gardening	Tree planting	Park visitation
Percent "yes"	73.2	63.6	36.7	51.9	65.3
Maximum Likelihood Parameter Estimates					
Intercept	1.700	2.624***	-0.644	0.165	1.692*
Newtown	-1.431**	-1.912***	-1.260***	-1.303**	0.524
South Central	-0.801	-1.369*	-0.270	-0.841	-1.099
Oakwood/Flowery Branch	-0.152	-1.273*	-0.570	-1.146*	0.101
Age	-0.005	-0.012	0.013	0.016	-0.030**
Female	-0.167	0.082	-0.367	0.445	0.097
Homeowner	0.059	0.046	0.875**	1.622***	-0.217
Less than high school	0.367	0.436	0.321	0.200	0.555
High school	0.032	0.259	0.225	0.293	0.092
Percent canopy	0.012	-0.004	0.002	0.009	0.005
	N=337	N=338	N=338	N=337	N=242
Model chi-square	21.43**	22.32**	33.47***	56.98***	16.19

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

TABLE 5 CONTRASTS AMONG PARAMETER ESTIMATES FOR NEWTOWN/FAIR ST., SOUTH CENTRAL, AND OAKWOOD/FLOWERY BRANCH

Dependent variable:	Relaxing	s.e.	Walking	s.e.	Gardening	s.e.	Plant tree	s.e.	Visit park	s.e.
Contrasts										
Newtown vs. Lake	-1.431**	0.528	-1.915***	0.502	-1.260**	0.395	-1.303**	0.467	0.524	0.467
South Central vs. Lake	-0.801	0.657	-1.369*	0.609	-0.270	0.513	-0.841	0.581	-1.099	0.638
Oakwood/Flowery Branch vs. Lake	-0.152	0.536	-1.273*	0.556	-0.570	0.445	-1.146*	0.518	0.101	0.531
Newtown vs. Oakwood/Flowery Branch	-1.279**	0.405	-0.642*	0.330	-0.690*	0.336	-0.158	0.339	0.424	0.394
Newtown vs. South Central	-0.630	0.424	-0.547	0.383	-0.990**	-0.392	-0.462	0.401	1.623***	0.496
Oakwood/Flowery Branch vs. South Central	0.650	0.521	0.096	0.442	-0.300	0.430	-0.305	0.446	1.199*	0.537
	N=337		N=338				N=337		N=242	

s.e.=standard error * $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

Independent Variables

Six predictor variables expected to influence dependent variable responses are community (Newtown/Fair St., South Central, and Oakwood/Flowery Branch; Lake=0); age; gender (1=female, 0=male); homeownership (1=homeowner, 0=not homeowner); education (less than high school, high school graduate; college=0); and percent canopy coverage. "Don't know" and "no response" options were coded as missing. Homeownership was included because of the intuitive relationship between private property ownership and green space manipulation. Ownership conveys rights to land

improvement and modification not accorded renters.

Homeowners were expected to be less likely to visit city parks because of the availability of private green space at their residence. It was expected as well that more highly educated individuals engaged in green space activities because they would be more likely than those with less education to realize the human health benefits of green space interaction, as well, females were expected to engage more than males with green space.

Analysis

Dependent variables in table III were analyzed using

binary logistic regression models. Table IV contains logistic model results. For each dependent variable, the probability of a positive response (“yes”) was modeled. The table includes percent of respondents indicating participation in each green space activity, maximum likelihood parameter estimates, and model chi square. An asterisk next to a maximum likelihood estimate for a predictor variable indicates a statistically significant difference between that variable and its comparison group.

For relaxing, residence in predominantly black Newtown/Fair St. area was the only significant predictor. Residents here were less likely than those in the Lake to say they relaxed outdoors at their homes. For walking in the neighborhood, again, Newtown was less likely than the Lake to walk, as was South Central and Oakwood/Flowery Branch. Newtown residents were less likely than Lake residents to garden. As expected, homeowners were more likely than renters to garden and plant trees. But again, those in Newtown were less likely than those in the Lake to plant trees. Neighborhood park visitation was the only activity for which there was no significant difference between the Lake and the three other comparison groups. Older respondents were less likely to visit parks than younger ones.

We were interested in activity comparisons between not only the base residential area (Lake) and each other area but also comparisons among Newtown and South Central, South Central and Oakwood/Flowery Branch, for example. An examination of differences in parameter estimates for each activity provided an indication of how any given area compared with another area. Contrasts or differences between parameter estimates for each of the area pairs (e.g., Newtown vs. South Central, Newtown vs. Oakwood/Flowery Branch, Oakwood/Flowery Branch vs. South Central) are shown in Table V. The table contains contrasts, standard errors, and p value estimates for each difference, by activity.

For each activity, contrast values between the Lake and each of the other three areas are the same as the parameter estimates for those activities in Table IV. This is because the parameter estimate for the Lake is zero. Newtown was also less likely than Oakwood/Flowery Branch to relax outside, walk in neighborhood, or garden. Newtown was less likely than South Central to garden but more likely than residents in this neighborhood to visit a park. In addition, Oakwood/Flowery Branch residents were

more likely than South Central dwellers to visit a park.

Discussion

With respect to the research question: are there differences in green engagement for residents in four communities across Hall County?—results indicated that Newtown/Fair St. residents were least similar to residents in the Lake area and Oakwood/Flowery Branch. The predominantly Hispanic, South Central area was different from the majority white Lake and Oakwood/Flowery Branch areas for only one activity, walking and park visitation, respectively. Notably, park visitation was the only variable with no significant differences for Newtown/Fair St. and the base group. This is likely due to the fact that there is a small park in the Newtown neighborhood, but it is less than one acre. Johnson-Gaither [9] reports that for Hall County, park acres per 1,000 persons is least for communities near parks with majority black and Latino populations, compared to areas with majority white populations. Thus, amount as well as quality of resources is important in evaluating engagement with urban, environmental services.

So what do results suggest for urban forest management? The relatively high-density, central city neighborhoods where a large proportion of Gainesville’s blacks and Latinos live preclude the establishment of new park acreage. Rather, city officials in Gainesville and Hall County might convert land from existing development uses to green usage. For instance, both Harnik [7] and Campbell and Wiesen [2] suggest that municipalities encourage the planting of community gardens in permissible areas around homes and in abandoned lots. Neighborhood or community gardens have been successful in urban areas in the northeast. Campbell and Wiesen [2] have documented a number of cases in some of New York City’s high crime areas such as the South Bronx, where the planting of gardens helped to reestablish community. Latinos of Caribbean descent were highlighted in this research. The gardens are cultural expressions brought with them from their native countries or passed on by their immigrant parents.

In the case of the Newtown community, environmental justice advocates have been pressuring city officials to condemn a metal recycling facility (“junk yard”) directly adjacent to the neighborhood. The goal is to have the junk yard relocate, and the property would be converted to a green space for residents in this part of Gainesville. There may also be abandoned industrial

facilities in the 1100 and 1200 census tracts that could be turned into green space. A continuation of this project could examine potential convertible spaces within industrial zones located in majority Latino communities on the city's south side.

While the relatively smaller parks sizes and higher population density in majority black Gainesville neighborhoods may inhibit green space engagement at the neighborhood level, Newtown residents in particular, may also be constrained in engaging more at their residences by fears that their neighborhood is contaminated with industrial poisons. Newton residents draw attention to the disproportionate number of polluting industries located either in their immediate neighborhood or in CBGs immediately adjacent to their neighborhood [14]. Newtown was established as an all-black community in 1937, a year after an earthquake devastated Gainesville. The neighborhood was constructed on top of former city and county landfills. From about mid-twentieth century onwards, industrial advancement slowly eroded the agricultural base that once formed the rural and woodland context on which the neighborhood was founded [14]. Residents cite what they believe to be an unusually higher number of deaths from diseases such as cancer and lupus as evidence of environmental poisoning [16].

Additionally, cross-disciplinary investigations examining indicators of environmental quality (air, soil, water) and resident perceptions of the same should be conducted. This research would help local residents, urban forest managers, and researchers understand better how either actual or perceived contamination affects green space interaction in south side Gainesville neighborhoods; and importantly, what actions could be undertaken by urban foresters to help avoid contact with contamination. Some majority Latino neighborhoods are also proximal to Newtown and indeed a sizable number of Latinos have moved into CBGs comprising the Newtown/Fair St. community. Because of their relatively recent arrival, however, Latinos may not be aware of environmental concerns; or some Latinos may seek anonymity because of the new, state immigration laws. Additional research should also include Latino perceptions of environmental quality and how this may affect care and concern for urban green space.

The success of industry relocation and green space establishment depends to a great extent on political participation of affected communities. The black community in Newtown has a long history of organizing against polluting industries and advocating for environmental justice (see www.newtownfloristclub.org).

In terms of environmental advocacy, the various Latino communities in the county have been less vocal. From a grassroots point of view, a more robust and likely effective effort would be for black and Latino communities on Gainesville's south side to join forces to advocate for environmental amenities. Thus far, this type of collaboration has not occurred.

This study has made an initial effort to understand some environmental opportunities and barriers encountered by recent migrants/immigrants to the southeast U.S. Green space access and its contribution to life quality are not immediately identified as a factor influencing successful integration into place. Yet, public parks and community gardens may provide immigrants a venue or a way to establish meaning and attachment to their new environment while remaining connected through nature to their culture of origin. Given the findings from this study, further studies are recommended using more targeted data collection procedures in African American and Latino- predominant communities to understand more precisely how these populations make use of both residential and municipal green spaces.

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- Data were collected in 2009, before the 2010 U.S. census. To calculate current (2010) population numbers and percent race/ethnicity in each of the four communities, we overlaid prior block groups onto 2010 block group designations.